

Green Framing in Chicken Broiler Production: It's not always black and white, is it?

A framing analysis of agricultural sustainability in large chicken broiler company videos

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About the Author

Dylan VanBoxtel represents the generation removed from the VanBoxtel dairy farm in Seymour, WI. Dylan originally attended the University of Michigan – Ann Arbor where he was an English and Program in the Environment Major. Eventually Dylan's passion for agriculture meant transferring to the University of Minnesota's College of Food, Agricultural and Natural Resource Sciences where he graduated with a B.S. in Applied Plant Science with an emphasis in Agronomy.

Since graduation Dylan has worked in communications and marketing for many different organizations throughout the food and agricultural industry. Prior to his current role, Dylan worked for a livestock health company, the University of Minnesota Extension Crops Team, and DuPont Pioneer. He also worked as a video contractor primarily serving clients in food and agriculture, but also worked in live sports as well as news.

Dylan's passion for the industry, knowledge of communications and videography, as well as background in agricultural science made him want to study how large companies attempt to communicate sustainability to consumers who have limited knowledge and experience with agriculture.

Dedication

To all of agriculture's stewards:

As the generation removed from the land I may never fully understand what you do, the trials and tribulations you face, and the complexities of the life you live, but I will never stop trying to tell your story, and bring people closer to the amazing work you do and people you are.

To Ann:

You are the most important steward and caretaker in my life.

Abstract

For large chicken broiler companies, persuading consumers that their production practices are sustainable has proven to be very difficult. The primary focus of this study was to understand how large chicken broiler companies leverage culturally embedded frames in video content on YouTube to persuade audiences that their way of farming is sustainable. To define sustainability in this animal-production and farming practice context, throughout this work I considered the U.S. Congress' 1990 Farm Bill definition of agricultural sustainability as an integrated system of animal production practices that are site-specific and over-time meet human needs, enhance environmental quality and preserve natural resources, while sustaining economic viability of farming operations and improving the quality of life for farms and society as a whole. This definition allowed me to focus my research on company articulation of agricultural sustainability in videos, because company messages incorporate sustainability philosophies and ideologies as well as point to specific production practices, and how that aligns with sustainable production goals. The study I conducted was comprised of a content analysis of 427 videos and framing analysis of 55 videos from three of the largest chicken broiler companies in the United States. The framing analysis revealed that stewardship, natural state and catalyst for change were the three most frequently used primary frames across the companies. While frames were not necessarily exclusive to production practices, each company did tend to leverage frames in ways that align with their brand positioning. Also in order to communicate the complex notion of sustainability, companies almost always use more than one frame within a message. Finally the way companies are framing sustainability issues related to production practices may be problematic, as they use the conflict frame to continually attempt to convince consumers they are wrong, while painting a completely different picture from industry and company criticisms. This may make videos ineffective at persuading consumers since they may not want to engage with content because of overall confusion they might feel regarding the nature of truth and concern about the morality of the industry and companies involved.

Introduction

With the industrialization of modern agriculture, and the paradigm shift toward the green movement and sustainable food systems, more consumers are concerned about where their food comes from and how it is produced. Consumers are so hungry for information about agriculture in fact, in a recent survey from *The Center for Food Integrity* (2018) 65% of the consumers surveyed indicated they were interested in knowing more about agriculture, specifically practices occurring on the farm (*A Dangerous Food Disconnect*, 2018). However scholars believe there is disconnect between consumers and production agriculture, as more and more individuals have become disconnected from the farm because of technological advancements in the industry (Kovar & Ball, 2013; Rumble & Irani, 2016; Rumble, Mccarty, & Ruth, 2017). Since consumers have limited first-hand experience and knowledge about agriculture, and associate industrial agriculture with “big is bad,” despite the fact the United States Department of Agriculture reports that 99 percent of U.S. farms are family farms and small family farms, those with a gross cash farm income of less than \$350,000, make up 90 percent of all U.S. farms (“Farm Structure,” 2018), communicating with consumers about modern agriculture is very difficult (*A Dangerous Food Disconnect*, 2018; Rumble & Irani, 2016; Weatherell, Tregear, & Allinson, 2003). Due to these issues, scholars have argued that it is not feasible to expect the public to make informed decisions about agricultural issues. Instead, consumers must rely on other ways to receive information about agricultural topics such as news media (Powell & Agnew, 2011; Rumble et al., 2017).

Amidst these shifts, the livestock production industry has faced news media criticisms about production practices such as animal welfare, the “non-therapeutic” use of antibiotics and environmental degradation. Food safety and nutritional value of the animal-based products have also been questioned and highlighted (Specht, Mckim, & Rutherford, 2014; Zimbelman, Wilson, Bennett, & Curtis, 1995). For the chicken broiler industry, which focuses on chickens raised for meat, these topics have become more

visible in light of recent events. For example, companies have begun new product labeling efforts and announcements of new U.S. Food and Drug Administration (FDA) guidelines for the use of antibiotics in food-animal production have surfaced. At the same time documentary films and series such as *Food Inc.* and *Rotten*, have highlighted animal production issues and portrayed large corporations negatively (“Consumer Updates - Phasing Out Certain Antibiotic Use in Farm Animals,” 2013; McKenna, 2017). Since consumers have limited knowledge of the industry, combined with the often negative, emotional, and reactive news media coverage of animal agriculture (Specht & Rutherford, 2013), this makes consumer’s views about animal agriculture “uncertain and malleable” (Doerfert, 2003). This opens the door for consumers to be susceptible to emotional pleas as well as media framing of animal agriculture, which heavily influences consumer perceptions (Kovar & Ball, 2013; Specht et al., 2014).

In response to negative media and cultural paradigm shifts, companies have increased paid and owned content dedicated to persuading environmentally conscious consumers that their practices are sustainable (Cronin, Smith, Gleim, Ramirez, & Martinez, 2011; “Sustainability: The ‘Embracers’ Seize Advantage,” 2011; Swenson & Olsen, 2017). Large broiler companies have also announced increased efforts toward production practice transparency (“2017 Highlights Report | Perdue Farms,” 2017; “Homegrown: From the Farm to Your Family - Sanderson Farms,” n.d.; “Sustainability | Tyson,” n.d.). Despite this push for “green advertising” the effectiveness of this content has been questioned by scholars, as it often does not result in changing consumer behavior. Also, consumers may be particularly skeptical of these advertisements because of the company’s reputation. They too may view sustainability messages as misleading, or a clear attempt to bolster the brand’s image while avoiding to talk explicitly about agricultural practices in relationship to sustainability constructs (Atkinson & Kim, 2015; Swenson & Olsen, 2017).

The goal of this study is to reveal how large broiler companies frame sustainability messages revolving around production (on the farm) practices in video content on company YouTube channels.

Video is a vital component of a communications strategy built around communicating sustainability to consumers as it is a more participatory medium than others and it provides the unique opportunity to demonstrate what happens on the farm, which can display a company's motivation to be sustainable through production practices, which are a visual manifestation of the company's values in action (*A Clear View of Transparency and how it builds consumer trust*, 2015). Videos also continue to be the most influential sources of information for consumers on topics of farming (*Perception Survey and Sustainability Research Roadmap*, 2015). While other studies have focused on the way companies frame messages about food and agriculture in terms of sustainability (Swenson & Olsen, 2017; Van Gorp & van der Goot, 2012), they have not focused specifically on animal agriculture or chicken broiler companies. These messages should be evaluated as there are unique barriers to consumer processing of sustainability messages because of category and company bias (Erian & Phillips, 2017; Goodwin, Chiarelli, & Irani, 2010), the elements of which will be talked about later. Also, while previous sustainability framing studies have investigated visual framing devices, they have not done so at depth, nor have they specifically investigated video mediums, which provide unique opportunities for framing due to the compositional factors, mise en scène, and music dimensions of the medium (Rose, 2007).

Literature Review

Sustainability

Agricultural Sustainability Defined

Sustainability as a broad ideological topic was first defined by the UN's World Commission on Environment and Development in 1987. It was defined and categorized as an all-encompassing concept known as sustainable development, which applied not only to agriculture but to government and business activities. In what was later known as the "The Bruntland Report," the Commission described sustainable development as "development which meets the needs of the present without compromising

the ability of future generations to meet their own needs (United States Department of Agriculture, 2002).” With this vague definition in mind, over time, the concept of sustainability began to change as other groups applied it to activities and areas such as agriculture and gave it their own individual ‘spin’ (Bell & Morse, 2008; Van Gorp & van der Goot, 2012). Bell & Morse (2008) believed the term sustainable development was malleable due to the fact the definition was initially referred to as a “quality of a system” and it did not refer to who or what was involved in that system and how quality could be determined across various contextual situations or systems. Keeping this in mind, a more specific definition of sustainable development, with specific references to agricultural systems, was needed. As a result the terms sustainable agriculture or agricultural sustainability rose out of the concept of sustainable development to describe sustainability as it relates to agriculture and agricultural practices.

Interpretations of what agricultural sustainability means have also varied, but two key analyses of definitions of sustainable agriculture argue the definitions arrange themselves into two schools of thought (Hansen, 1996; Thompson, 1992). These two schools of thought are agricultural sustainability as a “system-describing concept and as a goal-prescribing concept” (Hansen, 1996, p. 119; Thompson, 1992). With regards to the goal-describing concept, definitions usually consist of interpretations based in ideology or have specific references to agricultural management strategies. For ideological interpretations such as those by MacRae et al. (1990), Hansen (1996) noted that agricultural sustainability is referred to as an alternative philosophy centered around low inputs and usually described in contrast with what is described as conventional agriculture. In this context conventional agriculture refers to agricultural practices that are input intensive, large-scale and uses large amounts of pesticides, fertilizers, and antibiotics (Hill & MacRae, 1988). Within this interpretational school of thought, agricultural sustainability is often used as an umbrella term to describe various different kinds of production practices, which describe an alternative ideology that helps address the negative impacts that agriculture has had in the past (Hansen, 1996). The problem associated with references to

agricultural sustainability as an alternative ideology is it values those approaches that are in opposition to conventional agriculture, which was a term created out of various agricultural reform movements that emphasized issues related to agriculture such as diminished natural resources, harm of animals and the environment, and human health and safety risks (Dahlberg, 1991; Hansen, 1996). Subsequently while the definition of conventional agriculture remained vague, the problems that arose from agriculture were what was used to define what conventional agriculture was as these issues quickly became associated with the term (Dahlberg, 1991). Scholars have argued that the term conventional agriculture was created to “justify alternative approaches to agriculture” (Hansen, 1996, p. 120) and may not adequately describe the dominant philosophies of agriculture (Beus & Dunlap, 1991). With this in mind, ideological agricultural sustainability definitions often fall short because they may disregard approaches and philosophies that may enhance sustainability because they have been characterized as or associated with conventional agriculture. Usually included within these definitions of ideological agricultural sustainability are specific management strategies that align with this ideology. A major issue with this is that these definitions do not take into consideration, nor do they completely encompass management decisions that would be appropriate across animal and production settings or the unique environmental factors existing across various locations (Hansen, 1996).

The second school of thought regarding definitions of agricultural sustainability is goal-prescribing, where definitions focus on the ability of a system to meet a set of goals or the ability of a system to continue throughout time (Hansen, 1996). Over time, definitions emerged for sustainable agriculture that emerged out of those for sustainable development, which set goals based on an agricultural systems’ needs to improve social justice, economic progress, and the environment with what is known as the ‘Triple Bottom Line,’ which takes into consideration the needed balance between people, profit, and planet (Bell & Morse, 2008; Hansen, 1996). Neuymayer (1999) argued that strong definitions of sustainability focus primarily on the balance between economic gain, social justice and

environmental quality, and how there should be no sacrifice of environmental quality in order to make economic gains. One definition of sustainable agriculture that came out of this notion is the American Society of Agronomy's definition of sustainable agriculture. They state that a system that is sustainable is one that, "over the long term, enhances environmental quality and the resource base on which agriculture depends; provides for basic human food and fiber needs; is economically viable; and enhances the quality of life for growers and society as a whole" (American Society of Agronomy, 1989). However definitions like this one, since they are qualitative assessments, are subjective in nature and often rely on the author of the definition's goals and values and their description of relative weight of importance for these goals (Hansen, 1996; Lynam & Herdt, 1989). This was observed in an assessment of different stakeholder group's assessments of sustainability in poultry production settings, where the goal-criterion that were most important to determinations of what system was most sustainable was dependent upon the stakeholder group assessing sustainability (Castellini et al., 2012). This issue was problematic for Kidd (1992) as he argued this then allows the author to decide if a system is sustainable when it meets the goals the author considers important, as opposed to what the agricultural system might need (Hansen, 1996). A final interpretation of sustainable agriculture is a system that has the ability to continue to exist over an extended period of time. In this line of thought, a system's ability to sustain itself was referenced in terms of maintaining outputs and productivity, providing benefits to future generations, and to remain the dominant usage of land over time (Conway & Barbie, 1988; Gray, 1991; Hansen, 1996; Monteith, 1990). However, the issue with these definitions is that they identify criteria to determine if a system is sustainable, not necessarily provide a definition for what agricultural sustainability is (Hansen, 1996).

With the analysis of Hansen (1996) on definitions of sustainable agriculture and their shortcomings in mind, since my analysis focuses on definitions of sustainable agriculture through the lens of animal production practices and on the farm activities, I have decided to use the definition of

sustainable agriculture as defined by Congress in the 1990 Farm Bill. As defined by congress under law, the term sustainable agriculture means:

“An integrated system of plant and animal production practices having a site-specific application that will, over the long term: satisfy human food and fiber needs; enhance environmental quality and the natural resource base upon which the agricultural economy depends; make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls; sustain the economic viability of farm operations; and enhance the quality of life for farmers and society as a whole” (United States Department of Agriculture, 2002).

While overall this definition does still have shortcomings, it broadly captures definitions of sustainable agriculture since it includes components of the system-describing and goal-prescribing schools of thought as related to animal production. This definition is especially relevant to my research question, which focuses on company articulation of agricultural sustainability in videos, because companies often articulate sustainability philosophies and ideologies as well as point to specific production practices, and how that aligns with sustainable production goals. Unlike other definitions it also describes the importance of site-specific considerations. Finally this definition is formed on the basis of Neuymeyer’s (1999) definition of strong sustainability as it focuses on agricultural sustainability, where the balance between economic gain, social justice and environmental quality is taken into consideration. One thing to note is that this definition is qualitative in nature and evaluation of if one system is meeting those goals is subject to the stakeholder’s criteria for evaluation. Hansen (1996) believes there is no way to avoid this unless there is uniform quantitative evaluation criteria as well as a criteria that was “system-oriented, quantitative, predictive, stochastic and diagnostic” (Hansen, 1996, p. 138). Also within this definition, there is still wiggle-room for those claiming agricultural sustainability to prescribe their own ideology and since there is no defined measurable component of these goals, they

are free to convince others their agricultural production practices are meeting these goals. Ultimately this definition will allow me to realistically evaluate frames in the context of company video content, within a defined set parameters as they related to animal production practices and goals.

Why Study Constructions of Agricultural Sustainability?

Being perceived as a company that is generally considered “sustainable” has become a pivotal aspect to enhance corporate reputation and build a strong brand, and it can even increase a company’s financial performance (Barnett, 2007; Peloza, Loock, Cerruti, & Muyot, 2012). In turn, being perceived as “sustainable” can lead to increased customer loyalty and consumers are also willing to pay higher prices for “sustainable” products and services (Turban & Greening, 1997). When it comes to agricultural sustainability, whether food grown, raised, or produced is “sustainable” is a key factor considered by consumers when it comes to selecting food products. Also, in a 2015 consumer survey, “sustainability of U.S. farming and ranching” is an issue that at least 83% of consumers surveyed were at least “very concerned” about the issue (*Perception Survey and Sustainability Research Roadmap*, 2015). With the importance of agricultural sustainability to food and agriculture companies, the companies’ definition for agricultural sustainability has varied over time, and increased salience has meant more companies integrating this concept into strategic communications efforts and carving out their own definitions (Van Gorp & van der Goot, 2012).

Since they create their own content, have influence over what media might cover and can gain audience attention, companies have great influence over conversations about sustainability (Swenson & Olsen, 2017). With the vague and malleable definitions of sustainability, companies are placed in a unique position of influence which allows them to have the freedom to persuade audiences that the way they are doing business or engaging in agricultural activities is sustainable, and their definition of sustainability is the proper definition (Van Gorp & van der Goot, 2012). Also, even in more defined

definitions of agricultural sustainability like the definition associated with the 1990 Farm Bill, the open nature of making a determination regarding 'quality' when characterizing agricultural sustainability means that companies may freely apply value judgements to systems and claim sustainability as they see fit (Van Gorp & van der Goot, 2012). Hansen (1996) noted in his literature review how these definitions and ways agricultural sustainability is talked about is dependent upon what is salient in the cultural landscape at the time. For example, he mentions:

"Differences in practices promoted as sustainable have been attributed to differences in the problems emphasized (Carter, 1989) and to different visions of what agriculture should be like (Thompson, 1992)."

Since even in widely accepted system-describing and goal-prescribing definitions of agricultural sustainability there is great freedom for the author of that definition to push its own ideologies and philosophies and claim that company agricultural practices are sustainable within the parameters of goals, research needs to investigate how this is occurring in the context of modern communications efforts by agricultural companies. Similarly to a study conducted by Van Gorp & van der Goot (2012), this study will investigate that topic, but will specifically evaluate how large chicken broiler companies attempt to persuade consumers through videos on YouTube that their agricultural practices are sustainable.

Framing Theory

Framing theory was first proposed by Gregory Bateson in 1972, who originally described the idea as psychological frames that serve as a form of metacommunication or underlying messages in what one says or does, such as non-verbal cues (Arowolo, 2017; Bateson, 2000). According to Ardèvol-Abreu (2015), devices such as frames are necessary because "any communicative text, either informative or persuasive, requires narrative structures to organize its discourse" (Ardèvol-Abreu, 2015,

p. 424). The basis of framing theory is that framing helps contextualize and organize story content within a context that is familiar to the receiver, and helps focus attention on certain events and place events or story components into a field of meaning for the receiver (Arowolo, 2017; "Framing Theory," 2017). Frames, which is how something is presented to an audience, help influence receivers and how they process a piece of content. Frames also help receivers construct meaning from a piece of content by using cognitive shortcuts that link the piece of content to other systems of meaning for the receiver (Arowolo, 2017). In essence, frames not only tell the audience what to think about, similarly to agenda setting theory, but also how a receiver should think about that issue, similarly to the second level agenda setting ("Framing Theory," 2017). When it comes to communications content, similarly to journalists, content creators usually make a conscious decision regarding how to organize and present ideas (Arowolo, 2017; "Framing Theory," 2017). With such vague definitions of agricultural sustainability this leaves companies with not only the ability to be a gatekeeper of information about their on the farm production practices (what they choose to talk about), but also may be able to leverage frames in ways to persuade audiences their production practices are sustainable (and how they choose to talk about it). Since audiences might also have an innate sense of the nature of framing, and the fact there may be no completely objective piece of content, there is a fine line between frames that resonate with the receiver, and those the receiver may deem as inauthentic blurring of truth and reality. For Ardèvol-Abreu (2015) this means that in order for frames to affect message processing in the desired manner, there must be a "constant negotiation between the individual's social skills, attitudes, ideology, and the new information that comes through different news texts" and frames must match the "the schemas and belief system of the reader" (Ardèvol-Abreu, 2015, p. 430). Entman (1993) also noted that frames can be a way groups can purposefully convince others of their understanding of issues and how they should be or are addressing those issues (Steede, Li, Gearhart, & Sheridan, 2018). Here it can be seen

how frames can be an essential component of communicating issues regarding agricultural sustainability and convincing receivers that a company's production practices are sustainable.

Elaboration Likelihood Model and Sustainability

To theorize how audiences might interpret sustainability messages I will also examine the elaboration likelihood model (ELM) of persuasion, which explains the phases message receivers go through when they are faced with persuasive messaging. Under this model, receivers can process messages via two different cognitive routes, known as the central route and the peripheral route. When centrally processing, receivers carefully examine and consider the information provided to them. In the peripheral processing route however receivers do not carefully consider the information provided to them and instead rely on simple cues to make determinations about the message (Petty, Cacioppo, & Schumann, 1983).

The factors which determine whether or not an individual will use the central route of processing to interpret a message are a high degree of motivation, and an ability to interpret the message being delivered. One of the most important factors to determine motivation to interpret the message is personal relevance. In essence this means that as a message is deemed more important to an individual, their motivation to process a message goes up. However, high relevance is difficult to interpret because this could be effected by factors such as prior knowledge (Petty et al., 1983), which in the case for agricultural practices, is often limited (Kovar & Ball, 2013; Specht et al., 2014).

Research has indicated that while consumers claim they would rather support companies engaging in sustainable practices, ironically food and agricultural goods have been identified as low involvement goods (Beharrell & Denison, 1995). Scholars propose that one reason consumers are not motivated to process these messages is because of the stress associated with decision making processes

related to sustainability and that individuals would rather reduce stress by ignoring information related to making determinations of sustainability (Ehrich & Irwin, 2005; Peloza et al., 2012). Another added factor is that consumers who want to eat meat may prefer to not receive information about livestock production practices because they may prefer to remove the product from its animal origin in order to resolve cognitive dissonance associated with the raising and killing animals for the purpose of human use (Hoogland, De Boer, & Boersema, 2005). As a result of consumer uncertainty about food products and production practices and their active ignorance of sustainability information, instead of the central route of processing, consumers typically process sustainability messages peripherally, causing there to be limited, short-term persuasive effects (Beharrell & Denison, 1995; Peloza et al., 2012; Verbeke, 2005).

Under this model, it is important to reemphasize that consumers have a limited ability to process and assess sustainability messages made regarding livestock production practices because of their lack of knowledge about livestock production systems. Also the fact that companies and growers associated with agricultural practices often come from different cultural referent systems and backgrounds (Higgins, 1991; Weatherell et al., 2003; Zimbelman et al., 1995). Subsequently, if consumers have both limited knowledge and motivation to process messages, then they do not truly have the ability to deeply process or evaluate sustainability claims when they are made. So instead of central processing, consumers rely on simple cues or heuristics to inform their attitudes and decisions about company sustainability and sustainable agricultural practices (Goodwin et al., 2010; Ratneshwar & Chaiken, 1991; Rumble et al., 2017; Vanhonacker, Verbeke, Van Poucke, & Tuytens, 2008; Verbeke, 2005). Complicating this issue of message generation for these companies is that they also must also serve different stakeholder groups who have extensive knowledge and motivation to process the messages, so messages must still appeal to those groups as well. This may be problematic for companies since these high involvement stakeholders may be turned off by messages that are oversimplified, especially when it comes to the complex topic of agricultural sustainability, or if they are not framed in a

manner that aligns with their belief systems. Companies subsequently are forced to take into consideration both low and high involvement audiences when generating content.

As a model for how companies create sustainability messages and the factors that influence how audiences will receive and interpret those messages, the Shannon-Weaver Model expands on certain components of ELM and focuses on the message decoding process when receivers are exposed to persuasive messages (Shannon, 1971). Under the Shannon-Weaver Model, scholars have described four different heuristics or cues that may affect how a sustainability message is decoded by consumers. I will talk about two as they most closely relate to large chicken broiler company messages since they are closely related to or associated with noise, or messages from other sources such as news media. The first heuristic is category bias. These are those categories or industries that suffer from “negativity bias” in the minds of consumers (Peloza et al., 2012). As already discussed, the chicken broiler industry is victim of negativity bias because of consumer concerns regarding animal welfare, environmental degradation, and questions about product safety (Specht et al., 2014). These not only manifest themselves as messaging cues, but also as highly emotional images of animal mistreatment, pollution and dark, dirty chicken houses. This is in direct opposition to the long held agricultural myth of idyllic agrarian images including lush landscapes and open, green pastures (Specht & Rutherford, 2013). While the industry itself is subject to bias, the industrialization of agriculture has led to the usage of heuristics to articulate “big is bad” and “factory farming” in association with large agricultural companies (Tonsor, Olynk, & Wolf, 2009). Another bias that effects large chicken broiler companies is brand or company bias. In some ethical instances, certain brands have extreme positive or negative reputations regarding sustainability (Peloza et al., 2012). Since large chicken broiler companies production practices may get labeled as “factory farming,” companies such as Tyson Foods Inc. and Sanderson Farms have faced scrutiny in light of animal-abuse claims, price-fixing, grower mistreatment and abuse, and health and safety issues (“Drug residue found in Sanderson Farms’ ‘100% Natural’ chicken product, complaint

claims,” 2017; Libassi, 2017). These negative associations then become a notions that consumers begin to associate with all of the company’s farm and business practices, as well as its culture. As a result, consumers leverage this heuristic about the brand and its culture and use it to make value judgements about agricultural sustainability of the entire company regardless of the individual message content in front of them (Peloza et al., 2012).

With consumers having limited knowledge about agricultural practices, the presence of negative external noise, and consumer’s peripheral processing and reliance on heuristic cues, it is important for companies to be aware of this so they can most effectively leverage heuristic cues. Peloza et al. (2012) suggest that companies not just integrate sustainability messages in those communications efforts specifically dedicated toward sustainability, such as annual sustainability reports and videos, but instead finds ways to consistently repeat sustainability messages, using simple cues, throughout communications efforts in order for consumers to change their attitudes. They claim this is especially true in terms of integrating sustainability messages into product messaging communications since “messages are more likely to be processed through the central route of persuasion by the audience and therefore lead to attitude change” (p.90). It appears for chicken broiler companies then, it would be important to include sustainable farming heuristics into product messages as well as those focused on sustainability and on the farm activities specifically.

In terms of overcoming category biases, Peloza et al. (2012) suggest to catering sustainability messages to individual interests and direct benefits to consumers. This aligns well with ELM and the idea of making the livestock industry more personally relevant to specific segments of consumers (Petty et al., 1983; Rumble & Irani, 2016). Rumble et. al (2016) agree concluding that future research needs to focus on identifying the shared values existing between consumers, the industry, companies and growers since integrating values into messages that create common ground between the company and

the audience motivates the audience to process the information. It has also been noted that identifying these overlapping values will be essential in narrowing the communication gap between the industry, companies, consumers and growers since it allows there to be commonalities in cultural referent systems (Higgins, 1991).

Framing and Sustainability

Since it has been revealed that consumers are vulnerable to emotional pleas, and personal relevance and values are important messaging factors, companies may be positioned to leverage framing techniques in their messaging to persuade audiences about on the farm sustainability. While framing has similarities to heuristics as Peloza et. al (2012) defines them, framing refers to how a topic is presented by media and communicators. Frames provide context and subsequently help receivers with construction of meaning (Van Gorp, 2007; Van Gorp & van der Goot, 2012). With consumers lacking knowledge necessary to make informed conclusions about on the farm sustainability and the nature of sustainability as a quality of a system, frames are valuable as they help simplify and organize ideas, while providing an interpretive toolkit to help message receivers attribute meaning to different situations (Swenson, Gilkerson, & Anderson, 2016; Swidler, 1986; Van Gorp & van der Goot, 2012). According to Nisbet & Scheufele (2009) frames do not necessarily tell receivers what to think about an issue, but instead suggest “what is important about it, what information we [receivers] should pay attention to, who is responsible, and what potential solutions might be” (Swenson et al., 2016, p. 2). Much like heuristics, in the case of sustainability messaging where topics are complex and shared values are essential, frames connect visuals, symbols, and messaging components to cultural referent systems within cultures, which in turn helps receivers form ideas about issues and the sources where messages come from because of the common ground it creates (Clark, 1996; Nisbet, 2009; Van Gorp & van der Goot, 2012). In Nobel Prize winning research, cognitive psychologists Daniel Kahneman and Amos

Tversky observed that aside from the message content itself, the way messages are framed, by using different terminology and providing visual context, results in different responses by message receivers, ultimately concluding that “perception is reference dependent” (Kahneman, 2003; Nisbet, 2008).

Frames are composed of a core frame or central idea, as well as framing devices. Framing devices may include certain vocabulary choices, catchphrases, and metaphors, as well as visuals and moral appeals (Price, Nir, & Cappella, 2005). Combining these framing devices with their own personal experience, ideology, popular thinking and other cultural issues as presented by media sources, receivers construct meaning (Nisbet, 2008; Price et al., 2005; Swenson & Olsen, 2017; Van Gorp & van der Goot, 2012). Subsequently, Nisbet (2009) argues that frames can be invaluable tools for communicating sustainability because they can “bring diverse audiences together on common ground, shape personal behavior, or mobilize collective action” (Nisbet, 2009, p. 18).

Previous research has elucidated frames for science and technology as well as food and agricultural topics as they pertain to sustainability (Nisbet, 2008; Swenson & Olsen, 2017; Van Gorp & van der Goot, 2012). While Van Gorp & van der Goot (2012) ultimately conclude that “a combination of frames is necessary” within sustainability messaging, there has been little examination and discussion about the ways frames can be used together within the same message to either credit, or discredit another frame (Van Gorp & van der Goot, 2012). These studies also have not examined frames related to livestock production. Also, these studies have not evaluated visual framing devices at depth including those found within videos. Specht and Rutherford (2013) in their analysis of visual portrayals of livestock production by news media sources stressed the need to further investigate visual representations of the agricultural industry since the highly emotional visual framing devices typically used do not often even align with the subject matter at hand, deceiving viewers who have little agricultural knowledge (Specht & Rutherford, 2013). Also compositional components of visual framing devices are highly complex, and

meanings receivers create from visual representations is effected by not only the selection of the images used, but also by “emphasis and framing of specific images” (Allen, 1996). With this in mind, I intend to describe which primary frames are present within chicken broiler production videos while also examining ways multiple frames are used together within individual videos. I also will assess how not only image content is used as a framing device, but how various video compositional factors serve as framing devices that help construct meaning for receivers.

Purpose & Research Questions

While previous other scholars have created frame typologies and packages for topics of food and agriculture, the purpose of this study is to conduct a sustainability framing analysis, using the previously described frame packages as a foundation for analyzing video content from large chicken broiler companies. For the framing analysis I will focus specifically on those videos containing messages about chicken production and on the farm activities. For the purpose of this research I will be primarily evaluating the video content of three of the top four chicken broiler producing companies in the United States (Thornton, 2016). These companies are Tyson Foods Inc. (as well as Tyson Brand), Sanderson Farms, and Perdue Farms. In addition to messaging and visual content, I will also assess how video compositional factors support the construction of frames in videos. I hope to also evaluate the frames and framing devices unique to the companies, as well as how those compare to industry associations to understand the company and industry bias relationships. Finally I will investigate how these companies leverage frames in association with one another within messages. This study aims to evaluate these research questions:

RQ 1: What are the general characteristics of large chicken broiler company videos and what are the primary topics of the videos on company YouTube channels?

RQ 2: What are the primary frames used in videos focusing on chicken production and on the farm activities? Are these frames different than previously described food and agriculture frames? What are the messaging and visual devices used to construct these frames?

RQ 3: How do frames, including framing devices, differ between the companies, and how do the company frames differ from industry organizations?

RQ4: How are frames used in relationship to one another within messages? Which frames are used to complement one another and which are used to negate another?

As scholars have previously explained, the purpose of a framing analysis is to help scholars, communicators, and publics understand how communications discourse relates to media coverage, public opinion and policy. As a result, the information provided by this research should help companies understand how they can effectively find new ways to engage publics in conversations of sustainability related to on the farm activities in chicken production (Nisbet, 2008; Swenson & Olsen, 2017; Van Gorp & van der Goot, 2012). The information provided should also aid communications staff in understanding if the way they are framing topics in videos aligns with company communications goals, as well as the way their values are articulated across their communications platforms (Swenson & Olsen, 2017). Seeing which primary frames they have leveraged as well as how they are constructed will allow companies to isolate either the frames, or framing devices, and conduct further consumer-level research to see how consumers engage with the content. Also the can conduct research to see if consumer constructed meaning from the frames aligns with the originally intended meaning by the company (Nisbet, 2008). Through this companies can also gain a deeper understanding of how to use other compositional components to support frames. Finally it will provide preliminary insight into types of framing devices to use or avoid based on brand and category biases as well as noise coming from other places in culture or media (Nisbet, 2008, 2009).

Methods

In selecting the videos I would evaluate I decided to look through all of the content on the YouTube channels for Tyson Food Inc. (and Tyson Brand), Sanderson Farms, and Perdue farms, since YouTube is not only one of the fastest growing, and most visited Web sites in the United States, but also since it has been acknowledged by companies as an ideal tool platform for housing content, as well as marketing and advertising to consumer groups (Agrawal, 2016; Ahn, Han, Kwak, Moon, & Jeong, 2007; Freeman & Chapman, 2007). The videos I evaluated were all of those on the aforementioned company YouTube channels published between January 1, 2014 and April 28, 2018, as 2014 was a high visibility year for the industry and for the companies involved. 2014 was chosen as the cutoff date since in the previous year, the FDA announced new guidelines for antibiotic use in animal productions systems. In 2014 both Tyson Foods Inc. and Perdue Farms announced major initiatives to end their use of antibiotics by 2016 (*Perdue Company Stewardship Report*, 2016; “Tyson ends antibiotic use in company owned hatcheries | Food Business News | October 02, 2014 12:38,” 2014). This was also coming at a time when the health and safety of products was on the top of consumers’ minds, with Tyson Foods Inc. and Perdue Farms both experiencing widespread product recalls due to Salmonella (Castillo, 2014). In order to discover any relevant unlisted videos that might exist on YouTube and include topics related to on the farm production practices and activities, I searched the three company websites examining sections related to these topics such as: sustainability, animal welfare, chicken myths, sustainably raised, humanely raised, our growers, etc.

In order to answer research question 1, I performed a content analysis in line with the coding category methodology of Rose (2007) focusing on creating exhaustive, exclusive, valid, and replicable categories. First, I recorded characteristics such as duration of the video, and whether or not the video was an animation or included video footage shot by a camera. Since for the purpose of this study I was most interested in the videos shot using camera footage, I then noted whether the footage included a

voiceover or visible text and b-roll, or if there was an actual visible speaker in the video. B-roll is the footage which is supplemental footage or cutaways used to help add depth to a story, but does not include things like the subject being interviewed or your primary shot (A-roll) (McAleney, 2016). Based on previous research conducted by *The Center for Food Integrity* (2008), which linked the source of information about on the farm practices to overall trust, I wanted to examine the A-roll and note the type of speaker featured, as well as how they visually featured. The categories I used to describe the A-roll included a sit-down interview, or being featured as a “live subject/host,” meaning they were usually walking through the farm and the camera was moving with them. The idea of the live subject/host speaker comes from the widely held news and journalism term known as a *standup* (Pittman, 2014). Recording this type of information helped me understand how speaker choice is used as a framing device within the videos.

In order to conduct the framing analysis and to categorize the videos into topics, I followed the grounded theory of data collection from Corbin & Strauss (2008) where each video was analyzed for dominant concepts and central ideas. Once these were identified, dominant ideas were categorized into collapsing groups and this process was repeated until the primary topics and frames were settled upon. Since I was primarily interested in isolating those videos focused on production practices or on the farm activities, I first organized all the videos created by the companies on their YouTube channel from January 1, 2014 through April 28, 2018 by topic. In order to do this, I first looked at the title and written description for the video and watched each video at double speed to narrow videos down into a preliminary list of topics. From this I was able to rule out certain topics of videos that did not feature title, description, messaging, or visual features that focused on production practices or on the farm activities. Next I coded the transcripts of each video in Dedoose and rewatched each video to identify primary topics. It is important to note that these are the primary topics of the videos, and while there may be other topics included in each video, this set of primary topics is as exclusive as analyzing through

this method would allow. However this is not surprising due to the complexity of sustainability, food and agricultural issues, and reinforces the need to conduct a framing analysis to describe what consumers should be paying attention to and how communicators can more effectively engage consumers in a complex topic (Nisbet, 2008, 2009; Van Gorp & van der Goot, 2012).

Collapsing videos into topic, I was able to identify those that would potentially have significant messages and visuals pertaining to chicken production by the companies (On the Farm Activities and Production Practices, Sustainability, Growers, Company Values) and eliminated any of the videos from the framing analysis if they did not include messages pertaining to chicken production, as those videos were the only ones included in the framing analysis. for the foundation of my framing analysis, I primarily used the sustainability framing packages and typologies as previously described for science, food and agricultural messaging as outlined by Table 1 (Nisbet, 2008; Swenson & Olsen, 2017; Van Gorp & van der Goot, 2012). I examined the messaging framing devices as described by Ferree (2002) including “catchphrases, metaphors, lexical choices...allusions to history, culture and/or literature,” as well as when any element within the message suggested a sustainability definition, moral base, or emotion (Ferree, 2002; Van Gorp & van der Goot, 2012). While the frames in Table 1 were the primary framing typologies I used, all of the frames from previously described framing typologies for this topic were considered. Using some of the images from these packages as a basis for the analysis I also noted visual framing devices, and how the compositional factors of content, light, color, perspective, and expressive content may contribute to the frame (Rose, 2007).

Table 1: Framing Typology of Frames Applicable to Food and Agriculture

Frame	Description
Social Progress	Improving the quality of life for people or helping solve their problems. This is considered a subset of the progress frame.

Economic Development	Minimizing economic impact on people and government, or businesses. Also a shared market benefit or risk.
Progress	Modernization and scientific advancement within the food system, sometimes pertaining to technological advancement.
Catalyst for change	Celebrating or warning against those companies, people, policies and actions that could upset the current balance of systems as related to sustainability. This is considered a subset of the progress frame.
Natural State	Values those practices that returns farming to an idyllic, previous, more natural state. This is considered a subset of the progress frame.
Conflict	Describes issues related to food and agriculture as a struggle between two or more groups.
Public Health	Displays how food and agricultural issues effect public health broadly.
Stewardship	Describes and values those who are caretakers of food, farming, and environmental resources.
Sources: (Dahinden, 2002; Nisbet, 2008, 2009; Nisbet & Scheufele, 2009; Swenson & Olsen, 2017; Van Gorp & van der Goot, 2012)	

While I identified the primary frames first using the typologies in Table 1, I also considered any additional frames that might exist in these videos. For the framing analysis, in each video I identified the primary frame being used, but also identified any other frames used in the same video. In order to do this I considered Paula Saukko's (2003) qualitative validity triangulation approach which takes into consideration how research truthfully "captures the lived worlds of the people being studied" (Saukko, 2003, p. 20) "how well it manages to unravel social tropes and discourses that, over time, have come to pass for a 'truth' about the world" (Saukko, 2003, p. 20), as well as the "capability of research to locate the phenomenon it is studying within the wider social, political, and even global, context" (Saukko, 2003, p. 21). Using this model as guidance, I also analyzed videos from the National Chicken Council as a way to help validate my coding process. I also wanted to gain a deeper understanding of the reality of production settings and note any differences between industry level framing and company level

framing. In each of the videos I brought a transcript of the video messaging into Dedoose and coded excerpts of text when they exhibited framing devices relating to the typologies previously described. From there I was able to discover both primary and secondary frames being used in the messaging. I also evaluated each video and noted the images that supported each frame, and any compositional factor that might function as a framing device for the frame being used. Once I had these messaging excerpts related to the frames, I looked for trends in the frames as well as differences across companies. I did the same for the visuals chosen to support the frames as well as compositional factors. Finally, I exported the messaging excerpts where multiple frames were used within the same video, to see how the frames and framing devices complemented or negated one another.

Results

Video Characteristics

In analyzing all of the videos on these company YouTube channels (n= 427), I was able to organize the primary topics of the videos into ten categories: cooking, industry and production awareness, corporate and social responsibility, on the farm activities and production practices, company values, product advertising and attributes, holiday and contest, growers, and food safety and processing (definitions described in Table 2). The most common topic of the videos was cooking videos (51.1 %). Corporate social responsibility (12.8 %) and industry and production awareness (10.5 %) were the next highest video topics. Of specific interest to this research study, the on the farm activities and production practices this category ranked fourth amongst topics (9.4 %). The rest of the video topics were fairly evenly split between company values, product advertising and attributes, sustainability, holiday and contest, growers, and food safety and processing (see Table 3).

Table 2: Definition of Chicken Broiler Video Topics

Topic	Description	Example(s)
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Cooking	Videos focus on recipes and ways to cook chicken meat products made by the company.	Recipe videos, cooking instructional videos with a live host
Corporate Social Responsibility	Videos focus on societal and economic impact of company practices and initiatives. They also focus on broad sustainable development efforts and initiatives as described and defined by the company.	Videos about how companies are supporting local communities through food security initiatives, food banks, and providing educational opportunities for students while also supporting local economies. These also include CSR sustainability report videos and executives talking about sustainability initiatives throughout the company.
Industry and Production Awareness	Videos focus on providing information about the chicken production industry and also about important production topics. These videos speak from the perspective of 3rd party industry experts and do not talk about specific practices as they relate to the company in question.	An interview with a poultry veterinarian or animal scientist from a university where they discuss their professional opinion on why antibiotics are necessary in raising chickens.
On the Farm Activities and Production Practices	Videos focus on practices central to modern chicken broiler production. These focus specifically on the practices as they relate to taking care of chickens. Typically these videos are shot on the farm with growers present or include executives talking in-depth about production practices.	These videos include topics of animal welfare, antibiotic use, traditional housing and free-range, and organic and non-organic practices.
Company Values	Videos focus on the history of the company and demonstrate the philosophies and values of the company.	These include videos where employees and executives talk about company core values or purpose.
Product Advertising and Attributes	Videos focus on promoting consumer chicken products and the attributes of the products without significant emphasis on and clear linkage made between product and animal origin and production practices (significant can be defined by	These include videos talking about easy-to-use products, all-natural ingredients, and the product contains no antibiotics. Typically these are short videos that are typically noted as social media videos or TV advertisements.

	failing to show or talk specifically about production practices, but leveraging them as product attributes).	
Holiday and Contest	Videos focus on celebrating holidays of interest and the various consumer contests they hold during the holidays.	These included videos celebrating holidays and videos related to consumer contests.
Growers	Videos focus on the growers who grow the company's chicken and their families.	Videos include those with emphasis on family history on the farm, why growers do what they do, and how integrators (the companies) support the growers in their work from the perspective of the growers.
Food Safety and Processing	Videos focus on food processing and food safety activities of the company in its supply chain.	These videos primarily focus on the food safety research and initiatives of the company as well as investigating behind the scenes at processing plants or when products such as chicken nuggets are made using industrial processing equipment.

Table 3: Chicken Broiler Videos by Topic (n =427)		
Topic	Video Count	Percentage of Videos
Cooking	218	51.1 %
Corporate Social Responsibility	55	12.8 %
Industry and Production Awareness	45	10.5 %
On the Farm Activities and Production Practices	39	9.4 %
Company Values	19	4.4 %
Product Advertising and Attributes	17	4.0 %
Holiday and Contest	12	2.8 %
Growers	12	2.8 %
Food Safety and Processing	9	2.1 %

In evaluating the videos that had on the farm activity and production practice messages (n=55) and their characteristics (see Table 4), the most frequently used characteristic was camera footage or b-

roll (83.3%). Also, both videos and text overlays (this includes text being used outside of the traditional beginning and ending slides as well as lower thirds) were used in over half of the videos (51.85% and 61.1% respectively). While over half of the videos chose a more traditional seated interview, fewer chose to go with the live subject route (29.6%). Surprisingly, there was only one YouTube live video out of all of the videos analyzed (1.85%). This additionally was the only YouTube live video in the entire research study. Overall, footage as shot by a camera (including what we define as camera footage, interviews, and use of live subjects) was more frequently used than animations, as only four of the 55 videos used animations (7.3 %).

When it came to the speakers in these videos (see Table 4), the primary speakers were growers, who were included in over half of the videos (59.3 %). Company employees (22.8 %) and executives (22.2%) were also featured in these videos. In the case of the executives, the only people who were featured were John Perdue, Chairman of Perdue Farms, and John Tyson, Chairman of Tyson Foods Inc. Both are familial heirs to the business and former Chief Executive Officers. There were also seven videos containing omniscient speakers who were speaking on behalf of the identity of the company but their identity was unknown (13.0 %). Finally, there was one video where it was unclear who the speaker was, and one video containing animation where there was no speaker at all.

Table 4: Chicken Broiler Video Characteristics, Speakers, and Primary Frames for Videos with on the Farm Activities and Production Practices Messages (n = 55)

Characteristic	Count (videos including)	Percentage of Videos Using
Camera Footage	45	83.3 %
Interview	33	61.1 %
Text	28	51.9 %
Live Subject	16	29.6 %
Animation	4	7.44 %
Live Video	1	1.9 %
Speaker Category	Count (videos including)	Percentage of Videos Using
Grower	32	59.3 %
Company Employee	15	22.8 %
Executive Family	12	22.2 %
Company Unknown	7	13.0 %

Unclear	1	1.9 %
None	1	1.9 %
Primary Frame	Count	Percentage of Total Videos
Stewardship	22	40.0 %
Catalyst for change	9	16.4 %
Natural State	9	16.4 %
Conflict	5	9.1 %
Social Progress	4	7.3 %
Economics	2	3.6 %
Unclear	2	3.6 %
Progress	1	1.8 %
Public Health	1	1.8 %

Frames

The primary frame used most frequently was by far stewardship (40.0 %). Both catalyst for change and natural state were used an equal amount (16.4%). Surprisingly, conflict was the fourth highest frame used in these videos while social progress was used in four videos (7.3 %). Economics, progress, and public health were the least used frames (see Table 4). There were also two videos out of the 55 where a frame determination could not be made. For these videos, the frame did not fall within an existing typology, nor did it have a central idea that could be deciphered. Instead these videos contained disjointed framing devices.

The Stewardship Frame

The stewardship frame as revealed in this analysis very similarly resembled previously constructed framing typologies of stewardship. The frame centered on valuing growers, company employees, and practices that protected and took care of other people, chickens, or the environment. Most frequently the frame focused on caretaking of animals as well as company growers and consumers, while environment was not a primary focal point. Similarly to the description of this frame by Van Gorp and van der Goot (2012) and Swenson and Olsen (2017) notions of legacy were addressed within this frame. The construction of this frame aligns with both the responsibility frame as described

by Van Gorp and van der Goot (2012) and the public accountability frame as described by Nisbet (2008). Vulnerability, public accountability, and pride were often central notions associated with this frame.

One core focus of this frame is the importance of caretaking of animals and the metaphor of care (Van Gorp & van der Goot, 2012). In messaging this was framed using expressions of parental or motherly care directed toward chickens, and growers expressing sentiments such as “I treat them like my own kids” (*Verified Poultry Care 2017, 2017*). This also included expressions of providing, and remaining responsive, diligent and attentive while paying close attention to details to make sure all their individual needs are met. Similarly to the responsibility frame, there was emphasis placed on the vulnerability of chickens, which was typically linked to specific modern chicken production practices that would nurture and keep the chickens safe and healthy in the face of these vulnerabilities (Van Gorp & van der Goot, 2012). Growers often expressed care in ways that were linked to anthropomorphism, the use of human characteristics to describe or explain nonhuman animals (Horowitz & Bekoff, 2007). Growers would also articulate care philosophies from the perspective of the animal or the grower embodiment of the animal. For example one grower says, “you almost have to take on the life of a chicken. You have to think of why would this be uncomfortable or why is this comfortable to a chicken” (*Chicken Feed Tailored to Each Stage of Life, 2015*).

Visually this frame, when focusing on caretaking of chickens, was supported through images of young chickens and growers or company flock health specialists or veterinarians holding chickens in the palm of their hand or appearing to examine the chicken while holding it. The images of chickens chosen and the perspective taken by the camera focused on highlighting or demonstrating the vulnerability expressed in the messaging. While it was not exclusive to this frame, images displayed growers walking through their barns, looking at chickens. The perspective of the camera often gave viewers the point of view of the grower walking through the barn examining chickens by choosing handheld tracking shots from behind the grower. Also grower embodiment of chickens was manifested through shots that would

be low-angle, tracking shots focused on the chickens which gave the effect of seeing from the chicken's perspective or how production practices affect them. In observing this frame, when messages linked the frame to specific production practices, there were instances where the images associated with the message content were unlinked, and instead seemingly randomly chosen b-roll was used.

When focusing on the public accountability dimension of messaging, this centered on moral appeals and how sustainable practices and caretaking was simply the "right thing to do." When referencing consumers this was paired with the idea that consumers are not only depending on and relying on grower to do this, but also expect them to do this. While not exclusive to this frame, visually this was typically linked to families and parents consuming chicken products together, or placing progression images in the montage that linked farming practices and animal origin to products in the supermarket or those products that were consumed in the video.

In analyzing these videos, it was revealed how stewardship frames were used by every other frame in the analysis at some point within a video. Most frequently regarding growers and their production practices, stewardship was linked to progress, natural state and catalyst for change. While previously considered diametrically opposed (Van Gorp & van der Goot, 2012), in many instances technological advancements or movements to a more "natural system" were framed as facilitating or enhancing stewardship or being directly related to caretaking. For public accountability, the frames of public health, social progress and economics, were often results of stewardship. In instances where conflict was used as a frame, stewardship framing was juxtaposed with consumers' negative perceptions of caretaking.

With negative noise and company and industry bias surrounding topics of how well large chicken broiler companies are taking care of animals, people and the environment, utilization of this frame seems almost necessary to discussions of sustainability as it relates to on the farm activities and

practices. The stewardship frame as described above aligns with neotraditional portrayals of animal agriculture, which completely contrasts with criticisms of livestock production in news media. While the “New Perception” of animal agriculture portrays the industry as detrimental to animal welfare and controlled by large corporations, this neotraditional approach to framing attempts to emphasize animal caretaking through the lens of family growers and familial care values (Fraser, 2001).

Progress

In these chicken broiler videos, the progress frame was generally supported by discussions of modernization and the movement toward more sustainable chicken production systems. Much like in other scholarly descriptions of this frame, there was an emphasis on the value of technological advancements within the industry that would help facilitate more sustainable outcomes (Nisbet & Scheufele, 2009; Swenson & Olsen, 2017; Van Gorp & van der Goot, 2012) specifically with regards to animal welfare. While technological advancements were an important component within these chicken production videos, the progress frame was constructed by descriptions of scientific advancements such as improved nutrition, breeding and veterinary care which have propelled this industry forward. Often in these videos, sustainability was referred to as a constant journey, similar to conclusions by Milne, Kearins, and Walton (2006), where the company has announced commitments to sustainability and has been working toward these goals throughout the lifetime of the company. Visually this was supported through references to history such as old images of their brand, or those who were being interviewed sat in a room with historical artifacts. Most frequently this meant executives (John Tyson and Jim Perdue) were the primary speakers when this frame was being used. When referencing the technological components of this frame, there would usually be shots of modern technological animal welfare tools. However there also was the usage of various vague science and technology animated symbols as well as graphs to show general upward trends, however there was not any data or labels associated with the graph, just a trend of increase.

Within this frame companies referred to themselves as doing their best with the information available to them, and that they were constantly learning. However this can sometimes be problematic if the frame is perceived as distraction rhetoric, to act as a facade of true movement and progress made by the company (Milne et al., 2006). Sometimes, this was the case for these videos as the actual actions or practices were not discussed or shown at depth. In a similar regard, Van Gorp and van der goot (2012) refer to this idea of progress as a myth. As a result I would refer to the progress frame in the way these chicken videos are constructing the frame as describing the movement toward modernization and ideologically sustainable agricultural systems, however this ideology is unclear and dependent upon which group in society holds that belief system.

Swenson and Olsen (2017) also described the two subset narratives of this frame which align with how modernization was referenced in these videos. These frames are catalyst for change, which values disrupters within the industry, and natural state, which values advancements that bring agriculture closer to its original state (Swenson & Olsen, 2017). Another subset of this frame as described by Nisbet & Scheufele (2009) which was present in these videos was social progress, and the improvement of the quality of life for people as a result of more stable and sustainable business models and practices.

Catalyst for change

The catalyst for change frame as previously described by Swenson and Olsen (2017) which “celebrates or warns against people, companies, policies, and actions that could upset the current balance of our legal, social, political, agricultural, and environmental systems,” was observed in this analysis with regards to the actions and policies of the companies. The frame was also seen as a subset of the progress frame (Swenson & Olsen, 2017). Key to message articulation were notions of disruption, going above and beyond, and not acting in line with the status quo. The message was usually supported

with a description of new proposed initiatives, or results of the new practices. One element associated with this frame are articulations of surprise or the idea of the new and unexpected. Almost all references to the “system” in question were associated with the production system as it revolves around animal health. Many of these discussions were alternative production practices that would enhance animal health instead of using antibiotics. The other systems in question were usually informational systems to consumers (transparency) and feedback mechanisms/communications efforts with their growers.

Usually visually featured were interviews where growers were candidly smiling or laughing while articulating surprise with how well these changes have performed. The chairmen of Jim Perdue and John Tyson were also featured significantly in this frame as speakers, appearing in seven out of nine (77%) of the videos where catalyst of change was the primary frame.

Catalyst for change was most frequently complemented by conflict, although the usage of this frame was used almost exclusively by Perdue Farms. One way this was done was through the articulation of the inherent internal struggle associated with change within a company. This was especially true when talking about the difficulty of changing production practices and the hurdle that companies need to go over in order to move to antibiotic free practices. Another component of this was listening to, acknowledging and responding to criticism by changing company practices. When framed properly, by directly addressing criticism and displaying the company is changing, this frame could not only be useful in terms of persuading audiences that their type of farming is sustainable, but also potentially in boosting company reputation.

Natural State

In these large chicken broiler company videos, the natural state frame was similar to the previously described frames of natural state (Swenson & Olsen, 2017) and natural goodness (Van Gorp

& van der Goot, 2012). The frame prioritizes those practices that bring agriculture to its more natural, original state. Van Gorp and van der Goot (2012) describe this as keeping “distance from progress and innovations in the context of food and agriculture” (Van Gorp & van der Goot, 2012, p. 140). However that was not the case in this analysis. Instead, similarly to the natural state frame, the modern advancements actually support this frame. Advancements are referenced as leading systems to be more natural (Swenson & Olsen, 2017). In fact the “more natural” practices were actually linked to articulations of advancement and modernity such as growers referring to them as “cutting-edge” (*Perdue Family Farming*, 2017). Primarily these videos focused on discussions of housing, nutrition and organic, free-range production.

Messaging typically emphasized the ability of chickens to have freedom, and autonomy to express their “natural behaviors.” In the words of Jim Perdue this meant “letting a chicken be a chicken” (*Jim Perdue Talks About Giving Chickens What They Want*, 2016). Visually this meant spotlighting those practices that were being referenced as natural. This included images of chickens in natural light and using the enrichments in housing. Linked to the idea of freedom, autonomy and room to roam, there were many shots of chickens in lush, green landscapes. Also, the dimension of space was emphasized through the perspective of the camera. For example, there were many wide-angle shots of the houses and over the top drone shots looking down on the free-range pasture, emphasizing the great deal of space these chickens have (*Perdue Organic Chicken Farming*, 2017).

Natural state was most frequently complemented by stewardship and technological components of the progress frame. One surprising association with natural state and stewardship was the idea of when moving practices to a more natural state, this actually meant growers could be better caretakers of chickens. Farmers claimed this to be true since this shift in production practices forced them to pay closer attention to details, which is in opposition to the technological advancement components of the progress frame. However, technological progress, as well as research, was typically

framed as complementing natural state, because research can identify new ways to make environments more natural and in line with a chicken's needs and wants.

While this frame was used across the videos analyzed, it was only a primary frame for Perdue Farms. Based on the policies it was associated with (typically organic, free-range production) it still appears that usage of this frame is highly dependent on production philosophies, practices, and policies, as Tyson Foods Inc., and Sanderson Farms did not leverage this as a primary frame, and do not raise organic, free-range chickens.

Social Progress

The social progress frame was supported through expressions of increased social value, primarily by growers as the beneficiaries of support from the companies. This notion was similar to the social progress frame as defined by Nisbet (2008) focusing on improvements in quality of life. For videos in this analysis, growers were typically the self-described beneficiaries of modernization within the industry, and support from the companies. In messaging, there were often subtle references to upward mobility as brought on by increased status and having their own business. The relationship between the company and the growers was also socially beneficially for the growers, as they were given the freedom and autonomy they desire. For example, one grower remarks, "having my own business at my home, allows me freedom and autonomy" (*Donna Britt, Perdue Grower Since 1994, 2014*). Typically this was highlighted by other previous experiences that growers had which did not allow them to have this freedom, or the ability to maintain work life balance. Finally, improved quality of life for these growers meant they get to spend more time with their family and share in the farming experience with their family.

Typically this frame was complemented with the economics frame, mixing increased social and economic status. Also these frames were complemented by the stewardship frame, because of the

preservation of the farming legacy, and the ability of the growers to responsibly support and take care of their own children. As a result of the usage of these frames it was difficult to discern mutually exclusive messaging and visual framing devices for social progress. However, when combined with economics and stewardship, the framing devices often alluded to the American dream. The tone of these messages were humble but also very prideful. Some of the images used included the family smiling, working and playing on the farm. There also were images where growers were sitting on their large porches, after a long day, reflecting on what they built. Finally the facilitation of this American dream by the company was often visually subtle, and instead seemed like a shared experience between grower and company. In these videos company employees were sometimes visually disassociated from their professional duties, but instead there were images of the employees playing with the family. The shots are usually framed in a way where the entire family is seen, and the grower appears to be a trusted member of the family, not just a company employee.

The social progress frame functions as the companies' attempt to discredit "New Perception" notions associated with grower and large company relationships, and that large companies threaten the existence of family farming operations (Fraser, 2001). Other critics of large companies have portrayed growers as the victims of many social injustices including mistreatment, abuse and legal suits from large companies (Fraser, 2001; Mason & Singer, 1990). Here instead, this frame painted a very different picture, highlighting the importance of family growers and the articulation of important family values. Also, the frame broke conflicts between the growers vs. the companies, and instead framed the issues of working in harmony with one another toward a unified set of values.

Economics

The economics frame as described by Swenson and Olsen (2017) as well as Nisbet (2008) is supported in these videos by discussions of minimizing economic impact on growers and consumers.

Highlighted by this frame also was the economic benefit growers experience as a result of being associated with a company. Within the messages articulated by growers are feelings of stability, economic certainty, and protection. Along with this, there were explicit references to peace of mind felt by farmers, which was evoked via the calm happy tone of the messaging. In these videos, other than interviews of growers expressing these feelings, there were no mutually exclusive visuals for this frame. Instead the American dream visuals described in the social progress frame were used in combination with the stewardship frame.

In reference to minimizing economic impact on consumers, messaging typically focused on sustainable production practices without sacrificing product affordability, and the balance between people and planet vs. economics (profit). For example, in a video about Tyson Food Inc.'s philosophy on sustainability John Tyson said, "we're responsible for doing the best we can in a humane way, always balanced against making sure that food remains available and affordable" (*Raising Healthy Chickens [Extended]*, 2017). When this frame is used in this manner, message content fell in line with the idea of sustainability in terms of ecoefficiency and Neuymeyer's (1999) definition of weak sustainability.

Conflict

Others have described this frame as struggles that occur between two parties in reference to sustainability issues (Nisbet, 2008; Swenson & Olsen, 2017). Primarily in these chicken broiler company videos, the struggle framed between two parties was with regards to perception, reality and truth around sustainability and on the farm activities and practices. The primary conflicts which existed were company vs. consumer and company vs. company. Also described, especially when used in association with the catalyst for change frame, was company vs. sustainability, and the difficulties, obstacles and hurdles the company had to go through to have more sustainable practices. The usage of the frame as company vs. sustainability however was rare in this analysis and almost exclusively used by Perdue

Farms. When focused on company vs. consumer, message content typically addressed the divide between consumers' "New Perception" notions of animal agriculture and discredited the validity of those statements through neotraditional messages and portrayals (Fraser, 2001). These cited consumers' disconnect with production agriculture and lack of knowledge about modern production practices. In company vs. company conflicts, attention is actually brought to other company's message framing devices and how they are a misleading veil of truth. This meant references to other companies using "fancy language" to distract from their actual practices using surface level appeals as a way to greenwash. In one example, Perdue highlights this by saying "when it comes to the use of antibiotics and animal agriculture some brands dance around the issue with vague claims. At Perdue we don't dance around" (*Perdue's Commitment to No Antibiotics Ever*, 2016a).

Message framing devices included ridicule and sarcastic tone when speakers discussed these topics. "New Perception" notions were often discredited as laughable and ludicrous. Visual juxtaposition was a central framing device in this theme in order to discredit consumer misperceptions or greenwashing claims. For consumer misperceptions, videos contained a consumer question or claim visible on the screen, juxtaposed with various videography tactics focused on providing a behind-the-scenes look at production practices in response to that claim. For example, many of the auteur choices supporting this frame (not mutually exclusive) involved those similar to documentary filmmaking and the investigation of an issue. There was a live host/subject walking through chicken houses and talking with growers or other employees about production practices with the limited usage of tripods in favor of handheld or Steadicam shooting, with only natural lighting, evoking a sense of realism. Also to discredit untruthful consumer misperceptions, in text overlays important negating words were often large type size or a completely different color. For company vs. company conflicts, on screen claims made by other companies were displayed on screen in quotes, but were often edited into satirical forms and language. For example in a Sanderson Farms video, claims made by other companies were labeled

as gimmicks, stating the other company's chickens are raised with "100% good vibes" and are "fed a diet of compliments" (*Old MacGimmick Extended Cut*, 2017).

As mentioned previously, the conflict frame was most frequently supported by the stewardship frame. As alluded to above, the conflict frame is usually a gateway into stewardship framing and discussions about modern chicken production as well as surface level discussions of specific practices by the company. In many ways it appears that the conflict frame is a device to speak to consumer concerns and a gateway from peripheral processing and persuasion into attempts to get consumers to centrally process information and help them construct a new reality associated with modern chicken production.

Public Health

Similarly to how this frame has been previously described (Swenson & Olsen, 2017), the videos containing public health frames focused on chicken production practices and how that equated to products that will not negatively impact the health of consumers and are safe. Most frequently the idea of a "safe" and "wholesome" product was tied to antibiotics or hormones. The tone of messages using this frame was filled with assurance and confidence. Visually text overlays were used to provide additional assurance, often highlighting in different colors words such as "no" and "ever" in statements of no antibiotics ever used on the farm or in products themselves. Repetition in messaging was also another device used by these companies. In some Perdue Farms videos the message stated, "we are committed to raising our chickens with no antibiotics of any kind, at any time. When we say no antibiotics ever, we mean no antibiotics ever" (*Perdue's Commitment to "No Antibiotics Ever,"* 2016b). Grower speakers were also devices of trust and reassurance used in this frame, and talked about how they wanted products that will be safe for their family, and that they eat these products too. This idea was supported with farm families being shown in their home, cooking the products for their family.

Since this frame was linked with the practices themselves and ideas of caretaking and public accountability, most frequently this frame was complemented by the stewardship frame.

The usage of the public health frame as linked specifically with antibiotics and meat products may be a misleading persuasive construction of reality. For example, because of the FDA and USDA's monitoring systems, all chicken, whether using antibiotics or not in production, is tested to ensure that it does not have harmful antibiotic residues ("Making Sense of the New FDA Rules on Antibiotics in Chicken Production," n.d.). Subsequently, the videos that used public health framing linking antibiotics to the safety of the product itself may be misleading consumers.

Other frames

In this analysis I also evaluated if I could discover any other frames that were used. The frames already described were used with great frequency to complement one another and as a result of this stacking and layering of frames, I was unable to isolate any other central ideas other than those already described. One potential reason for this was because of the nature of the videos I conducted a framing analysis for. These videos were those that contained on the farm activity and production practice messages and often the primary focus as it relates to sustainability was on animal, people and profit, but did not really focus on environmental impacts. This also speaks to the strength of the framing analyses I cited and how they can be applied to different topics within sustainability.

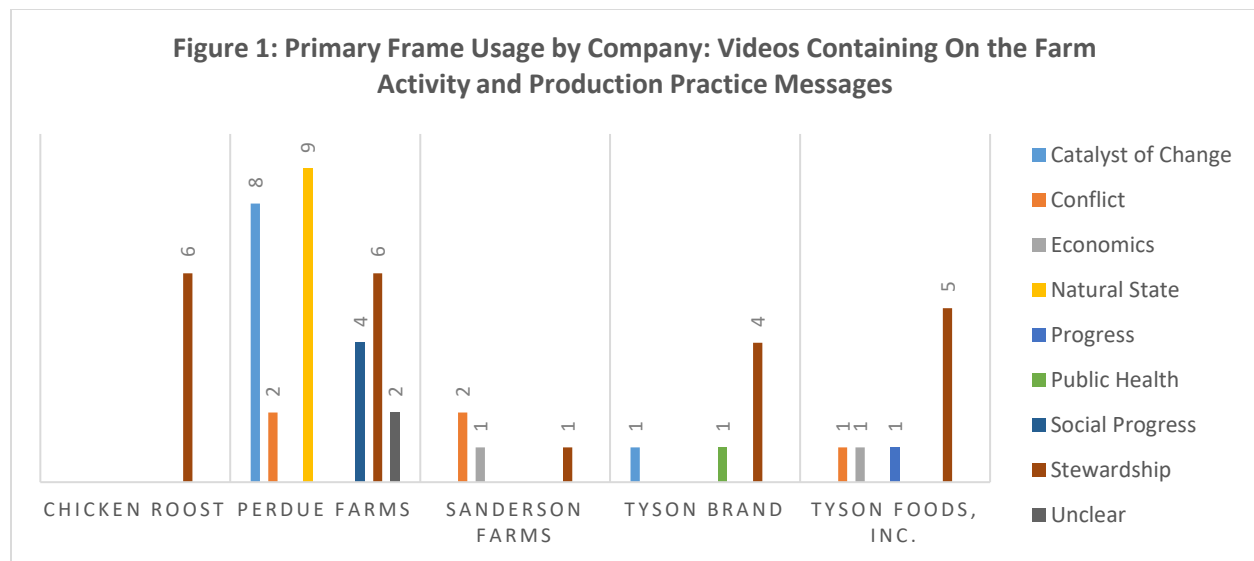
Compositional Factors

Ultimately through this analysis compositional components were not necessarily mutually exclusive for or unique to the frames, but instead were additional devices which supported the frames and helped construct meaning by showing receivers what was important to see. Factors to consider with this pertain to reality of the video production process for these companies and auteur choice or

preferences. As a result of stylistic preferences, budget, desired brand voice, compositional components such as the general look, lighting, color, depth of field, etc., may remain the same across videos created by a company. Also in some cases the videos may have all been created by the same auteur or agency and have a similar look and feel, while in other situations the videos were created by multiple different groups of people. As a result of this lack of visual consistency, it was difficult to isolate compositional factors relative to framing across multiple videos.

Frame Usage by Company

Videos containing company on the farm activity and product practice messages were a major focal point for Perdue Farms, Tyson Foods Inc. and Tyson Brand. However, for Sanderson Farms there were only four videos containing company on the farm activity and production practice messages. Across all companies besides Sanderson Farms, the stewardship frame was used at a high percentage by companies (see Figure 1). The Chicken Roost videos from the National Chicken Council, also functioned as a true control to represent the industry perspective on these messages as all of the primary frames used in their videos were stewardship. Perdue Farms was the only company to use natural state and catalyst for change with such high frequency as they used each nine and eight times respectively. Sanderson Farms was also the only company to use the conflict frame with a high percentage (50% of videos). Finally, Perdue Farms had the greatest variability of primary frames used as no frame was used with a percentage higher than 30 across its videos.



Discussion

Within this analysis it was revealed as to what were common characteristics, stylistic choices and speakers for these videos. Clearly using a grower as a framing device was important as they appeared in over half of the videos. Because of the topics discussed and the relative high trust of growers this seems like an almost obvious choice to connect ideas of familial caretaking and stewardship to production practices (*A Dangerous Food Disconnect*, 2018). However because of the cultural divide and different referent systems between consumers and growers (Higgins, 1991; Rumble & Irani, 2016; Rumble et al., 2017) one has to wonder how different groups of consumers might respond to growers being used as a framing device in different frames. For similar reasons it was surprising that no one outside of growers or company employees were speakers in these videos. Using someone from a similar background as consumers in one of these videos may limit consumer perceived bias, and may also more effectively frame topics. The only video where a tactic like this was used was in one video where a “city boy” turned into an animal health specialist for Tyson interviews growers and they talk about animal welfare practices.

With both the industry and these large companies facing large amounts of negative noise related to production practices and sustainability I was overall surprised by the lack of videos these companies had dedicated to company on the farm activities and production practices. All three of the companies analyzed in this research placed great messaging emphasis on sustainability, animal care other production practices and transparency (*Perdue Company Stewardship Report*, 2016; “Sanderson Farms Continues its Mission in Transparency,” 2018; “Sustainability | Tyson,” n.d.) in their overall communications strategy, yet when it comes to the primary topics of video messages, this is definitely not the case, since these videos happen with such limited frequency (9.2%). While research has revealed that integrating small sustainability messages into other kinds of videos may be effective to persuading consumers over time (Peloza et al., 2012), this was not an approach that these companies took regarding linking sustainable production practices to the products themselves. Especially considering of all the videos only 12.3 percent (n =55) had significant sustainability messages related to company on the farm activities and production practices, meaning these were the only videos that linked what happens on the farm (animal origin) to chicken products. While there were a significant number of videos focused on providing information about the chicken production industry and also about important production topics (10.9%), these videos spoke from the perspective of third-party industry experts and did not talk about specific practices as they relate to the company in question. One has to wonder about the efficacy of these videos as far as persuading consumers considering much of this information does not focus on heuristics and assumes consumers will centrally process a large amount of information. Also, even though these were third-party experts, being that these were on company YouTube channels, there may still be questions by consumers about the validity of the claims made by these experts, and the videos may still be victim to the same kind of bias the company would face, if not worse.

My analysis revealed that previously described frames as they related to science, food and agriculture (Ferree, 2002; Nisbet, 2008; Swenson & Olsen, 2017; Van Gorp & van der Goot, 2012) were found within the videos of these large chicken broiler companies. Being that this industry and these companies have faced negative criticism regarding animal welfare, responsible antibiotic use, product safety, and mistreatment of growers (Fraser, 2001), it was not surprising that the top three frames used were stewardship, catalyst for change and natural state. Focusing on elements of caretaking, responsibility and public accountability, stewardship was used widely by all companies in the analysis, and focused on these notions as they pertain to people, chickens and profit. However chicken production has also been criticized for its contributions to environmental issues such as water pollution, global warming and increased land use dedicated to growing feed (Fraser, 2001; Mason & Singer, 1990). With that in mind it was surprising that there were very few discussions of environmental stewardship related to production practices.

Similarly to Van Gorp and van der Goot's (2012) frame analysis, usage of frames was not exclusive to particular companies, nor were they exclusive to specific production practices or styles. While natural state was used by all companies to frame production practices, it was most often linked with organic production, especially organic free-range production. Additionally, while public health was used to frame various production practices, it was most frequently linked to production that was no antibiotics ever. Also Perdue Farms most frequently used the catalyst for change and natural state frame, while Sanderson Farms used the conflict frame with the highest percentage relative to their total videos.

These videos also aligned with Van Gorp and van der Goot's (2012) statement that since issues of sustainability are complex and frames are just one way to simplify complicated topics in a familiar way, multiple frames may be needed within messages to help consumers think in a more nuanced fashion about sustainability. In this analysis, if videos were over 15 seconds long, it was very rare to see

the usage of just one frame within a video. Throughout there was complex stacking of frames in ways that complemented one another. In some instances it was difficult to understand the stacking of frames with any sense of coherence, due to the number of frames used and the associations made between them.

Along with the idea of two different portrayals of animal agriculture, is that companies can use framing devices that may distract or derail the frames, as receivers may associate that image with a completely different frame, or the device might actually negate the frame. This was especially true when companies used framing devices that were also used to criticize the production practices of the company. For example, in one Tyson Foods Inc. video where the primary frame is stewardship and caretaking focusing on animal welfare, they have decided to shoot the video in a very dark chicken house, and do not use any external production lights. The video is very dark and it is difficult to see the speakers in the video as well as the chickens in the houses. While I am not recommending that companies distort the reality of production settings, shooting a video in this style may just reinforce the critical notions and images of chickens be cramped in dark barns, and regardless of the message, this is the visual cue they will remember which will distract from and negate the stewardship frame. In line with Peloza et al. (2012), it is clear that companies need to pay closer attention to the broader media environment, and be careful of usage of certain kinds of images, because the heuristic might overshadow any intended meaning or context created by frames due to the peripheral processing nature of consumers. With this in mind, companies should be sure to rigorously test video messages to understand how consumers might encode images used related to production practices.

Finally, appeals to morality and values were used throughout to support the frames. Especially evident were those moral appeals related to caretaking and familial values and the legacy left for future generations. These appeals were devices for the stewardship frame and were complemented by other frames. Using these values may be one way to appeal to a target audience and to provide something

metaphorically familiar to consumers (Rumble & Irani, 2016; Van Gorp & van der Goot, 2012). It is unclear however how consumers might process these messages depending on different ideologies. Also with the usage of multiple frames and moral appeals, consumers may deem these videos as non-substantial greenwashing. However this may be a quality approach as recent research from the U.S. Farmers & Ranchers Alliance (2015) said that consumers commonly associate supporting local agricultural communities and their families and being socially responsible with sustainability. The research also showed that while multigenerational history does not necessarily resonate with consumers, future promises of improvement for the next generation does (*Perception Survey and Sustainability Research Roadmap*, 2015). Also, with multiple frames, it may difficult for consumers to decode messages and meaning might get lost in translation due to the limited visual literacy of the receiver of the message (Specht & Rutherford, 2013).

What also was surprising in this research was that the conflict frame was the fourth highest primary frame used. For some videos, the frame emphasized a company's internal conflict and how they need to change and continue to find ways to be more sustainable. Ultimately the usage of this frame in this fashion was rare. In other instances however, the conflict was placed on consumers' misperceptions of their practices, lack of knowledge about the issue or general disconnect from food agriculture. One has to wonder how receptive consumers might be to the latter example of conflict framing, as this may turn off consumers who may feel this is a shifting of blame or distraction away from a company's true practices. Messages framed in this manner may also feel alienating to consumers, making them not desire to process the messages. Also similar to the progress myth mentioned above, it may function as a statement of not needing to do more or change their practices, consumers just need to get educated on the issue. Also it may seem hypocritical to consumers to emphasize the disconnect between consumers and their food but then provide very few pieces of video content that show them life on the farm and production practices. For those conflict framing instances where companies discuss internal conflict and

the need to “do better” in ways that portray taking ownership and demonstrating seriousness while signaling honesty, this may more effectively engage certain groups of consumers. However in this instance framing devices would need to be more carefully examined and subsequently tested with consumers.

Conflict was not only used as a primary frame, but in many instances it was used as a way to complement or negate other frames. Throughout, conflict and stewardship framing were used with high frequency. It was revealed that these frames were used with one another to paint a picture of the reality of sustainable production practices as opposed to how they have been portrayed and framed in other media. In this analysis it became clear that practices were framed highly positively through stewardship framing and in ways that were completely in opposition to negative noise about the industry through conflict framing regarding perception, reality and truth. Fraser (2001) discusses issues relating to framing and between “New Perception” negative portrayals of animal agriculture by other media sources and how agricultural organizations have “responded with public relations material promoting a very positive image of animal agriculture” (Fraser, 2001, p. 1) and denying critics’ claims entirely. As a result Fraser argues that there are two diametrically opposed portrayals of animal agriculture that are highly simplistic and contradictory. Since consumers see there is a very limited agreement about facts and truth, and in this analysis there was company vs. company conflict about the truth, it is difficult for consumers to engage with content because of overall confusion and concern about the morality of the industry (Fraser, 2001; Johnson, 1991). This oppositional framing may then subsequently turn consumers off, leaving them to not even peripherally process or engage with the content. With there being such a highly contested dispute over truth, the companies framing production practices using the conflict frame may essentially lead consumers to a rhetorical decision making process of an our word vs. their word, which is an uphill battle for these companies who may not have high reputations to begin with, and who face negative noise and industry and company bias. The U.S. Farmers and Ranchers

Alliance also warns that trying to convince your audience that their opinions are wrong about sustainability and production practices will simply not be an effective tactic (*Perception Survey and Sustainability Research Roadmap*, 2015). Also with such a substantial difference between “New Perception” accounts and company videos, consumers may view company portrayals as being too perfect, and subsequently deem it as greenwashing. Finally if all of these frames ultimately question truth or the reality of what production practices are and there is no consensus of what makes them sustainable, how can consumers make value judgements about what is sustainable? Ultimately one has to question how this kind of framing, and framing overall effects consumers understanding of sustainability and if they actually have a more nuanced understanding of production practices and what sustainability is as a result (Van Gorp & van der Goot, 2012).

One potential underpinning for why conflict is used as a primary frame may involve the inoculation theory of resistance to influence. This theory focuses on model ways that communication can help build resistance to persuasive attempts, by posing arguments against a receivers system of beliefs, and presenting them with the counterarguments to discredit those persuasive attacks (“Inoculation Theory,” 2018). McGuire (1964) believed that if you expose receivers to a persuasive argument in a way that shows a weak argument against an existing belief, receivers could build resistance to additional persuasive messages while still retaining their existing beliefs (Compton, Jackson, & Dimmock, 2016). The videos containing the conflict frame did show instances of the primary components of attitudinal resistance by including a threat or forewarning, and also a refutational preemption (McGuire, 1964). However, in some instances the framing makes the forewarning appear to be more of a declaration of incorrectness than a warning, and the refutational preemption is not always explicit or easily understood. Since this theory is based on protection of existing beliefs, it is unclear how effective this strategy will be with audiences given these companies are subject to company bias and this industry is subject to industry bias, and there may not be the existing beliefs to build off of. However

potentially deconstructing existing beliefs about what is agricultural sustainability may leave room for this theory to be effective in the context of the conflict frame. Also Pfau et al. (1997) argued that issue involvement is a key component to this theory and the inoculation process, specifically through the lens of involvement and its relationship to threat. Pfau et al. (1997) discovered that low involvement receivers may not perceive their attitudes are under attack or even care, and those receivers with high involvement may have already thought about those attacks and challenges (Banas & Rains, 2010). Based on this research, the conflict frame may be most effective in those audiences with moderate involvement as they may most likely perceive there to be a valid threat and feel motivation to process those messages (Pfau et al., 1997).

An option of a way to potentially effectively use the conflict frame to not paint this diametrically opposed, perfect picture of agriculture and to avoid the myth of progress in sustainability framing was seen in Perdue Farms' construction of the conflict frame. Company messages were framed as company vs. sustainability and spoke about the trials and tribulations of changing practices, as well as how they are changing practices as a result of concerns and criticisms the company has faced as complemented by the catalyst for change frame. In many ways this framing may be an effective cue because it demonstrates the transparency dimension of accountability as described by Rawlins (2008), where companies take responsibility for their actions and mistakes, and are open to criticism. Here we begin to see a potential relationship between frames and framing devices and transparency signals, especially since information availability (or framing a message to lead one to believe information is available) is linked to positive perceptions about continuous company improvement and production practices related to sustainability. (*Perception Survey and Sustainability Research Roadmap*, 2015; Rumble & Irani, 2016).

Insights and Recommendations

Based on the previous research, as well as the frame analysis I conducted, here are overall recommendations for large chicken broiler companies, as well as for each company analyzed.

Overall recommendations

With video continuing to be an influential route to communicate to consumers about on the farm practices and sustainability, the large companies should continue to expand the videos they offer consumers on these topics. In terms of communicating sustainability regarding on the farm practices, the companies are falling short of delivering the content consumers desire, especially considering topics of animal care, production practices and environmental impacts are top of mind for consumers (*Perception Survey and Sustainability Research Roadmap*, 2015). Not only were there a relatively low number of videos specifically dedicated to on the farm activities and production practices (9.2 %), but also there were limited messages throughout all of the videos that actually linked other topics, such as the products themselves, with the farm (12.8 %). However as research indicates it is not just about quantity of the videos but also quality, and these companies should be strategic about message content and how messages are framed (Rawlins, 2008).

As Peloza et al. (2012) recommends in order to combat the issue of low involvement and passive processing of videos, companies should consider embedding agricultural sustainability messages about on the farm activities and production practices throughout other kinds of videos as appropriate. In line with this, companies should integrate these more frequently into messages focusing on product (Peloza et al., 2012). While many of these videos did give slight mention to production practices to promote the product, it was not always in a way that provided context, and tangibly linked production practices and animal origin with the product. Instead, messages simply referenced these practices as an attribute of the product without visual and messaging linkages to the farm. Providing this contextual linkage to the

farm would not only be recommended for low involvement audiences, but may also be a way to continue to appeal to high involvement audiences as well. Since framing over time may function as a way to show receivers what a company finds important or what their values are, continuing to provide linkages to what the company is doing on the farm is another way to align company ideology with consumer ideology. It also continues to emphasize how the specific production practices of the company are linked to the company's agricultural sustainability goals. This displays the company's commitment to talking to consumers about the importance of agriculture by tangibly (even if in a very minor way) discussing production practices, instead of using another tactic to persuade audiences that the company is agriculturally sustainable that the high involvement audience might deem as fluff or greenwashing. However as mentioned previously, finding effective ways to persuade these audiences is a very fine line, and would ultimately need to be tested.

Also in the formation of messaging that may effectively address negative industry bias, continuing to attempt to align messaging with consumer interests and concerns as well as direct benefits of sustainability is recommended for these companies (Peloza et al., 2012). These companies cover some topics that are important to consumers such as animal welfare and support for local growers and communities. They also leveraged the social progress frame and stewardship frame from the perspective of taking care of and being accountable to consumers. Surprisingly however, the companies talked very infrequently about how they were protecting natural resources and limiting negative environmental impacts. Companies should consider implementing discussions of how production practices affect the environment more directly, since protecting the environment and replenishing natural resources are concepts that consumers associate with sustainability (*Perception Survey and Sustainability Research Roadmap*, 2015), while subjects such as animal care are not often associated with consumer definitions of sustainability. Framing topics through relevance to consumers may help with central processing, especially if companies continue to link this with shared values (Rumble & Irani,

2016). Continuing to identify ways to understand those overlapping values companies have with consumers should be a point of emphasis in consumer research for these companies.

As already discussed, the usage of the conflict frame in ways that alienated consumers or attempted to convince them that their opinion regarding their production practices is wrong may not be an effective way to get consumers to process messages, as this may simply perpetuate bias consumers feel toward companies (Peloza et al., 2012). Instead of deflecting and saying consumers are wrong, companies should address the concerns of consumers in messaging in more understanding and honest ways and portray taking these concerns to heart. Another way to limit company bias is to align messages with trusted companies or organizations (Peloza et al., 2012). As a result of the industry bias however this might be difficult. One suggestion would be for companies to align messaging with industry held guidelines and definitions of topics related to production practices and sustainability. Currently these companies frame conflict between each other on what is truth and reality, and as a result there is general confusion from consumers about what is happening on the farm and what sustainable practices truly are (Fraser, 2001; Johnson, 1991). While companies may feel conflict frames are necessary to maintaining a competitive advantage, unfortunately it may just perpetuate industry bias, which is not good for any of the companies as this can cause demand for chicken products overall to decline (Tonsor et al., 2009).

In analyzing framing devices throughout these videos, it was clear that companies need to be more cognizant of the devices they use and how consumers might interpret them. For example, there are visuals used, or the way the visuals are composed, which may detract from the central idea of the frames being used by the companies in the videos. Instead of associating a particular image with the desired frame, consumers might associate that image with a criticism of the industry that came from negative noise. In fact there were situations where images all too closely resembled industry and company bias heuristics. Since consumers might be processing messages peripherally, it is very

important that visuals are tested with consumers to avoid having one cue detract from the desired frame. Also, companies should conduct more monitoring of the visual landscape to try to avoid these issues when strategizing video shot ideas (Peloza et al., 2012). Also messaging language needs to be more carefully constructed as there were frequent instances where industry specific language could deter from how consumers might construct meaning from the messaging. For example there were some references to animal care that are widely used by those in the industry within the stewardship frame, however consumers may misinterpret this because it may get encoded by as a reference to the animal simply as a commodity, not a living being.

I will now provide specific insights and recommendations for each company.

Perdue Farms

With regards to Perdue Farms' framing of stewardship and animal caretaking, Perdue was unique in that it emphasized taking into consideration not just the chicken's needs, but to giving them their wants, through science and technology and more natural environments. Other than the industry control videos, they were also the only company to talk about agreed upon industry standards and guidelines related to on the farm production practices. They were the only company in this analysis to leverage catalyst for change and natural state as primary frames. The usage of these frames is well in line with the business practices and brand positioning as Perdue was one of the first of the large companies to announce they were implementing no antibiotics ever in production practices and that they were going to create organic, free-range product lines (Cohn, n.d.; *Perdue's Commitment to "No Antibiotics Ever,"* 2016b). They were also the only company to use such a wide array of frames throughout their videos, which shows their deep understanding of the complexity of the concept of sustainability, and how issues need to be framed in ways that show the balance between people, planet, and profit (Neumayer, 1999). The company also most uniquely framed the catalyst for change frame as

well as the progress frame. Within these frames they used conflict as well, but in ways that displayed honesty and care, and did not shift the blame to consumers but instead framed the issue as company vs. sustainability. They also did not frame the company as “perfect” and admitted their faults. Due to this level of honesty, this may be a way to engage with consumers. My recommendation would be to continue this line of framing as it is unique and may function in many ways as an effective transparency signal (Rawlins, 2008). While Perdue Farms leveraged many different kinds of frames, they also had the most videos where the central idea of the video was unclear. In these videos multiple different kinds of simple cues were used, however it was unclear what the central idea was, which would defeat the purpose of framing in the first place. I would recommend the Perdue Farms communications team (or whomever is at the table in the storyboarding process) to be sure to identify a central idea as a team, and then work to build framing devices that coherently manifest the central idea.

Sanderson Farms

In Sanderson Farms videos, construction of the stewardship frame with regards to animal caretaking, meant using modern science and technology to give chickens optimal living conditions. This did not mean giving them more natural conditions, but instead the most ideal conditions for growth. Through the message framing, there was a sense of control and protection as opposed to the way Tyson and Perdue leveraged this frame. Overall messaging focused on debunking myths about modern chicken production and providing consumers the “honest truth” about how chickens are grown. Many of their messages were aimed at limiting misinformation about the industry and often criticized chicken product advertising at large for misleading consumers through fluffy statements (“Chicken Myths - Sanderson Farms,” n.d.). This was evident throughout their videos as conflict was the most frequently used frame, primarily with regards to company vs. company conflict. They were often sarcastic and critical of message framing by other companies. If Sanderson Farms is going to continue to lean into this brand positioning of being an honest company and debunking myths about the industry, it should consider

creating more video content dedicated toward the topics of on the farm activities and production practices, as they had by far the fewest videos dedicated to these topics of the companies in this analysis. While they did include a significant amount of third-party industry awareness videos, none of these specifically described the practices of Sanderson Farms. My recommendation would be to lift the veil over their production practices and create videos dedicated to this topic. They could continue to maintain their myth busting usage of conflict in communications efforts, however it might be difficult for them to leverage a brand position like this without showing consumers what they do on the farm. One way Sanderson did show chicken production practices was in an eight minute long video. The video was highly detailed and full of information, which is dependent upon central processing. I would recommend creating shorter videos where the topics are broken up, in order for consumers to potentially be more willing to process these videos. Also the language being used appears to be a more suitable referent system for growers than it would be consumers, where chickens are often referred to in ways typical to the industry and more as an agricultural commodity than an actual living organism. They should consider changing the language to be more consumer centric, or provide more context as to why they are referring to chickens in that manner.

Tyson Foods Inc. and Tyson Brand

For all videos underneath the Tyson umbrella, constructions of the stewardship frame relied on references to moral responsibility and accountability to meet the needs of chicken, which aligns well with Tyson Foods Inc.'s messaging on their website ("Sustainability | Tyson," n.d.). Unlike Perdue Farms who leveraged the catalyst for change frame along with stewardship to go above and beyond simply meeting chickens' needs, Tyson leveraged stewardship from the responsibility and accountability standpoint. Family values were not only expressed through the framing devices of growers, but also uniquely through the framing of company employees as a part of the family. Many of the videos analyzed were actually those created by award winning documentary filmmaker Daniel Junge in an

effort to display sustainability practices in a transparent manner by giving a behind-the-scenes look into what goes on at the farm level (“Documentary Series On How Tyson Chicken Products Are Made | Tyson Foods, Inc.,” 2017). From a compositional standpoint I think the videos should have highlighted this more or visually brought this to the attention of viewers. Instead the videos might simply be interpreted by consumers as your run of the mill branded piece of content. Bringing more attention to the auteur and production process to make the video feel more like a documentary film may have given the videos more of an authentic and transparent feel. Also it might have helped to contextualize some images that might be decoded as company or industry bias heuristics. For example, the use of natural light to shoot inside the chicken houses may have been Tyson’s attempt at giving a real and transparent look into the houses. Instead it most likely will be interpreted by consumers as just another dark and dirty chicken house. Also while these videos were meant to show sustainability practices and connect consumers to what happens on the farm (“Documentary Series On How Tyson Chicken Products Are Made | Tyson Foods, Inc.,” 2017), they focused frequently on the disconnect between consumers and their food, as well as misperceptions consumers have in ways that may be alienating to consumers and cause them to not process these videos.

In message framing about sustainability, Tyson Foods Inc. did leverage the economics frame and the idea of being sustainable, with respect to keeping the products affordable for consumers. While for Neumayer (1999) this is noted as a weak approach to sustainability because of its references to ecoefficiency, this may be an important component of sustainability to highlight when consumers consider it. In a 2015 survey from the U.S. Growers and Ranchers Alliance consumers cited “ensuring our food nourishes all people regardless of socioeconomic status by making it accessible, affordable, and healthy” (*Perception Survey and Sustainability Research Roadmap*, 2015, p. 5) is a priority when considering sustainability as it relates to farming. This may also be a way for Tyson Foods Inc. to shed the negative connotations associated with the “lower-tier” of agriculture, and that providing

standardized and cheap food for consumers can be high quality and does not have to be input intensive (Bove, Dufour, & Luneau, 2001). When combined with other frames, such as public health and stewardship, economics could then be an important frame for Tyson Foods Inc. to capitalize on in the future being that the company and its products most often get associated with this “lower-tier” of agriculture.

Chicken Roost: National Chicken Council

Compared to the companies in this study, the Chicken Roost videos did in many ways function as a control case for framing of sustainability as it relates to on the farm activities and production practices as stewardship was the primary frame leveraged in all of the videos analyzed. These videos were highly focused on providing detailed information, as opposed to simple cues, on the topic of animal caretaking. One suggestion for future videos is to be sure to include other frames in videos that may be more focused on the people component of sustainability, and to also focus on other moral appeal framing devices and topics outside of animal care and production practices. The stewardship frame was typically complemented with the progress frame, really focusing on each component of modern production practices and how they contribute to chicken caretaking. This systems approach was similar to Van Gorp and van der Goot’s (2012) undermining of foundations frame. Also messaging devices focused on an obligation to caretaking and defined industry guidelines, but did not often discuss moral or ethical dimensions of care. Being that these videos did take an approach that was focused on detailed information as it applies to central processing, there often was language that may not be easily interpreted by consumers, or misinterpreted as in opposition to the stewardship frame. Much similarly to the Sanderson Farms videos, there was language that appeared to be more industry specific, and related to agricultural commodity success and health standards as opposed to constructing chickens as living organisms. Again, Chicken Roost should consider finding ways to contextualize these references or translate them into more appropriate language for consumers.

Limitations

One limit of this research was the fact that I only analyzed those videos on the company YouTube channels, and did not focus on other platforms for video hosting or distribution such as Facebook. Although in a brief scan of company channels, there appeared to be similar videos posted to other channels as those on YouTube, but it cannot be certain. Some of the company videos discovered were unlisted on the company YouTube channel. While I attempted to combat this by searching throughout specific sections on the company websites, this might not include some videos that are buried on the website. Another limit to describing how large chicken broiler companies in general frame these topics was that these were the only of the large companies I found that actually advertise chicken under a unified brand, and also have a presence on YouTube. Sample size of videos with on the farm activities and production practices of the company was also limited since Sanderson Farms had only four videos containing these messages.

While this does provide insight into ways that frames have been used both from a messaging component and a visual component to construct meaning compared to previously described frames, it does not provide extensive insights into understanding fully how consumers might interpret images. Using my understanding of visual and video composition, and using previously described visual framing packages, I was able to provide a basic understanding of meaning construction and the relationship between messaging, image content and other compositional factors, however this was not exhaustive to all of the features of video. This also was not a formal semiological analysis which would be able to understand how these images might have produced cultural meaning (Rose, 2007).

Using previously conducted research relative to this topic I was able to provide suggestions as to what might be effective ways to frame messages, however this analysis does not confirm efficacy. One limit to making minor correlations with efficacy was the fact that there were not uniform engagement

statistics I could evaluate for these videos. Some major obstacles to this were that many of the videos were unlisted, which would greatly effect viewership, and comments were completely disabled for some of these channels.

Future Research

Using this framing analysis as a guide, future research should investigate different components of framing and framing devices and how consumers interpret messages relative to company intent. One component of this is if the frames and how they are constructed truly align with consumer ideologies. Another component to investigate is how consumers interpret different images used within these videos and if they would actually complement or distract from the central idea of the frame. With the complexity of this stacking of frames within messages, much research needs to be done to understand with greater depth the relationship between the frames and construction of meaning and also determine if consumers are able to decode these frames. With company videos having such a diametrically opposed construction of sustainability and what happens on the farm with other types of media, it needs to be understood if the framing of these videos in this fashion helps consumers have a more nuanced understanding of sustainability in chicken production, or if it simply increases the divide between consumers, the industry and these large companies. Finally, since there was a linkage between the usage of the conflict frame in a way that aligned with effective transparency models, future research needs to determine how the usage of the conflict frame (company vs. sustainability) can be used to engage consumers with sustainability issues and persuade consumers through its relationship with transparency signaling.

Conclusions

Since consumers are hungry for information about where their food comes from, convincing consumers that on the farm activities and production practices are sustainable is important for large

chicken broiler companies. However with limited knowledge about and first-hand experience with agriculture, it is not feasible that consumers can make informed decisions about agriculture and make value judgements about sustainability. Other obstacles in persuading consumers are negative noise, industry and company bias, and the fact that definitions of sustainability are vague and can differ between companies and consumers. However, how a topic is framed via video may be a unique and effective way to engage and convince consumers of sustainability. While consumers desire to learn more about what happens on the farm, only 12.8 percent of videos focused on this topic and 51 percent of videos focused on cooking and recipe videos. Most commonly used throughout these videos with messages focusing on production practices and on the farm activities was the stewardship frame especially discussing topics of people, animals and profit, but not necessarily planet (environmental impacts). As noted in previous studies, frames were not necessarily used exclusively to describe specific practices, however natural state typically was associated with organic, free-range farming, while public health was associated with production using no antibiotics ever. While stewardship was used by all the companies in this analysis, each uniquely leveraged different combinations of frames and framing devices that were in line with company values and positioning. In line with communicating strong sustainability values, the companies very rarely leveraged just one frame in a video, but instead a combination of frames was used to complement one another. Ultimately it was revealed that the way companies are framing topics of on the farm activities and production practices is diametrically opposed to “New Perception” criticisms and often paints a near perfect image of agriculture. This idea of “New Perception” and neotraditionalist portrayals of the industry was originally revealed in 2001. While much has changed about this industry since 2001, this divide between the two portrayals and truths in agriculture has remained and companies continue to try to convince consumers that their way of thinking about agriculture is wrong, with limited success. If large chicken broiler companies are truly to close the knowledge gap and persuade consumers that their practices are sustainable something has to

change about their strategy. This analysis revealed that one potential way to do this might be to frame conflict in ways that portray a conflict of company vs. sustainability, where companies do not paint a perfect picture of agriculture, but move toward honest consideration of criticisms instead of placing blame and framing other kinds of conflicts. Future research should see how this type of framing may relate or help contextualize messages with accountability and potentially engage consumers through honesty and transparency.

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Appendix

All research was collected via Dedoose and can be made available upon request.